UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,108	12/07/2004	Adrianus Sempel	NL 020460	1317
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001			EXAMINER	
			BODDIE, WILLIAM	
BRIARCLIFF	BRIARCLIFF MANOR, NY 10510		ART UNIT	PAPER NUMBER
			2629	
•				
		•	MAIL DATE	DELIVERY MODE
			11/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
	10/517,108	SEMPEL ET AL.				
Office Action Summary	Examiner	Art Unit				
	William L. Boddie	2629				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS,						
WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period v  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from to cause the application to become ABANDONE	N. nely filed the mailing date of this communication.  D (35 U.S.C. § 133).				
Status		•				
1) Responsive to communication(s) filed on 23 A	ugust 2007.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under E	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) <u>1,11,12 and 19-32</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1,11,12 and 19-32</u> is/are rejected.						
7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.						
o) Claim(s) are subject to restriction and/o	r election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
The bath of declaration is objected to by the Ex	cammer. Note the attached Office					
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) All b) Some * c) None of:						
<ul> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> </ul>						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)	_					
Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail D					
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal F 6) Other: <u>JP 3</u> – 17	Patent Application				

Application/Control Number: 10/517,108

Art Unit: 2629

### **DETAILED ACTION**

### Election/Restrictions

1. Claims 33-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 23<sup>rd</sup>, 2007.

Currently claims 1, 11-12, 19-32 are pending.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 1, 11-12, 20-21, 23 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Konno et al. (US 6,940,481).

With respect to claim 1, Konno discloses, a method of scanning lines in a display, comprising:

selecting one or more lines in a predefined first area (lines 1-n in fig. 19) of the display to be scanned,

scanning the one or more lines in the first area (scans line n first in fig. 19),

selecting one or more lines in a predefined second area (n+1 – 2n) of the display, scanning the one or more lines in the second area (see fig. 19), and repeating the selecting and scanning of lines in each of the first and second areas (fig. 19; col. 20, lines 48-61) so as to reduce tracking by a human eye of energy variations caused by scanning (this will be accomplished inherently due to the order of the scanning).

With respect to claim 11, Konno discloses, a method of scanning lines in a display, comprising:

selecting a line (line n in fig. 19) between a first and a last line of a first set of lines ( $1^{st}$  set – n, n/2, n+2...) of the display and thereafter alternately selecting and scanning a lower order line (line n+2) and a higher order line (line n/2) relative to the first selected line until all lines of the first set have been scanned (fig. 19), and

selecting a line (n+1 in fig. 19) between a first and a last line of a second set of lines ( $2^{nd}$  set – n+1, n-1, n+n/2...) of the display and thereafter alternately selecting and scanning a lower order line (line n+n/2) and a higher order line (line n-1) relative to the first selected line of the second set until all lines of the second set of lines have been scanned (fig. 19).

With respect to claim 12, Konno discloses, the method of claim 11 (see above), wherein a lower order line (line n+2) in the first set is selected simultaneously (fig. 19) with a higher order line (line n-1) in the second set and a higher order line (line n/2) in the first set is selected simultaneously (fig. 19) with a lower order line (n+n/2) in the second set.

Art Unit: 2629

With respect to claim 20, Konno discloses, the method of claim 1 (see above), wherein repeating the selecting of lines in each of the first and second areas includes:

decrementing a first index to the lines in the first area (n, n-1, etc. in fig. 19), and incrementing a second index to the lines in the second area (n+1, n+2, etc. in fig. 19).

With respect to claim 21, Konno discloses, the method of claim 20 (see above), wherein the decrementing and incrementing includes decrementing and incrementing by a factor of one (fig. 19).

With respect to claim 23, Konno discloses, the method of claim 20 (see above), wherein repeating the selecting of lines in each of the first (n+1 – 2n in fig. 19) and second areas (n – 1 in fig. 19) includes:

incrementing the first index to the lines in the first area (n+1, n+2, etc. in fig. 19), and

decrementing the second index to the lines in the second area (n, n-1, etc. in fig. 19; should be noted that in claim 23, the lines considered the first and second area are reversed from those previously mentioned. There is no claim limitation in claims 1 or 20 requiring that the first area be "above" the second area.).

With respect to claim 32, Konno discloses, a display device, comprising:

a display (fig. 3) that is configured to display data content on a plurality of lines (1 – 2n in fig. 3), and

a control unit (106 in fig. 3) that is configured to:

select and scan one or more lines in a predefined first area of the display to be scanned (n-1 in fig. 19),

Art Unit: 2629

select and scan one or more lines in a predefined second area of the display (n+1-2n in fig. 19), and

repeat the selecting and scanning of lines in each of the first and second areas (alternately; fig. 19; col. 20, line 48 – col. 21, line 5) so as to reduce tracking by a human eye of energy variations caused by scanning (inherent in this order of scanning).

4. Claims 1 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Konoue et al. (JP 03/125,187).

With respect to claim 1, Konoue discloses, a method of scanning lines in a display, comprising:

selecting one or more lines in a predefined first area (A1 – A240 in fig. 1) of the display to be scanned,

scanning the one or more lines in the first area (A in fig. 2a),

selecting one or more lines in a predefined second area (A241 – A480 in fig. 1) of the display,

scanning the one or more lines in the second area (B in fig. 2a), and repeating the selecting and scanning of lines in each of the first and second areas (fig. 2a) so as to reduce tracking by a human eye of energy variations caused by scanning (this will be accomplished inherently due to the order of the scanning).

With respect to claim 19, Konoue discloses, the method of claim 1 (see above), including selecting and scanning one or more lines in at least a predefined third area of the display (C in fig. 2b), wherein repeating the selecting and scanning of lines in each

Art Unit: 2629

of the first and second areas includes repeating the selecting and scanning of lines in the third area (fig. 2b).

5. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Sakumoto (US 6,563,483).

With respect to claim 25, Sakumoto discloses, a method of scanning lines of a display, comprising:

selecting and scanning each line based on steps of varying sizes in a first direction from each prior selected line (fig. 3; obviously varying sizes of steps between the line),

reversing the first direction when the selecting is beyond an extent of the display (selection of a line beyond the display never occurs, and reverses direction when such a selection would occur), and

repeating the selecting, scanning, and reversing until all lines of the display are scanned (col. 2, lines 29-30).

6. Claims 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (US 6,731,301).

With respect to claim 27, Sato discloses, a method of scanning lines of a display, comprising:

scanning a first set of contiguous lines (lines 1-4 in fig. 35a in field 311), scanning a second set of contiguous lines (lines 9-12 in fig. 35a in field 311), and subsequently scanning a third set of contiguous lines (lines 5-8 in fig. 35a in field 312) that are located between the first and second sets of lines (see fig. 2b).

Application/Control Number: 10/517,108 Page 7

Art Unit: 2629

With respect to claim 28, Sato discloses, the method of claim 27 (see above), including scanning a plurality of other sets of contiguous lines (lines 13-16 in fig. 35a etc.) in an order that reduces tracking by a human eye of energy variations caused by scanning until all lines of the display are scanned (inherent in the scanning order here disclosed).

7. Claims 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Herbert (US 6,014,125).

With respect to claim 29, Herbert discloses, a display device comprising:

a display unit that is configured to display data content on a plurality of lines (fig.

1),

a control unit (10 in fig. 2) that is configured to select and scan the plurality of lines based on a select sequence of a plurality of line selection sequences (clock A and clock B in figs. 3-4),

wherein the control unit is configured to select the select sequence based on the data content (col. 4, lines 61-67).

With respect to claim 30, Herbert discloses, the display device of claim 29 (see above), wherein the data content is classified using a classification that includes text and graphics (col. 4, lines 61-67), and the control unit is configured to select the select sequence based on the classification of the data content (col. 4, lines 61-67).

# Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Page 8

Application/Control Number: 10/517,108

Art Unit: 2629

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al. (US 6,940,481) in view of Sakumoto (US 6,563,483).

With respect to claim 22, Konno discloses, the method of claim 20 (see above).

Konno does not expressly disclose, wherein the decrementing and incrementing includes decrementing and incrementing by a factor that varies.

Sakumoto discloses, wherein repeatedly selecting lines includes randomly selecting the lines (col. 2, lines 29-30; for example).

Sakumoto and Konno are analogous art because they are both from the same field of endeavor namely, row scanning schemes.

At the time of the invention it would have been obvious to one of ordinary skill in the art to randomly select the incrementing and decrementing values from the first and second areas, of Konno, as taught by Sakumoto.

The motivation for doing so would have been to improve display quality (Sakumoto; col. 2, lines 38-39).

With respect to claim 24, Konno discloses, the method of claim 1 (see above), wherein repeating the selecting of lines in each of the first and second areas includes alternately selecting the lines within each of the first area and second area (col. 20, line 66 – col. 21, line 4).

Konno does not expressly disclose, randomly selecting the lines to be scanned.

Application/Control Number: 10/517,108

Art Unit: 2629

Sakumoto discloses, wherein repeatedly selecting lines includes randomly selecting the lines (col. 2, lines 29-30; for example).

Sakumoto and Konno are analogous art because they are both from the same field of endeavor namely, row scanning schemes.

At the time of the invention it would have been obvious to one of ordinary skill in the art to randomly select lines from the first and second areas, of Konno, as taught by Sakumoto.

The motivation for doing so would have been to improve display quality (Sakumoto; col. 2, lines 38-39).

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakumoto (US 6,563,483).

With respect to claim 26, Sakumoto discloses, the method of claim 25 (see above).

Sakumoto does not explicitly disclose, wherein the steps of varying sizes correspond to a progression of sizes.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to progress the sizes of the varying steps because one would have expected Applicant's invention to perform equally well with the random scan selection taught by Sakumoto or the claimed progression of size because both intervals perform the same function of decreasing the appearance of bright lines during saccadic eye movement. Applicants' own specification states that

Application/Control Number: 10/517,108 Page 10

Art Unit: 2629

random line selection will accomplish this on page 7 line 31 to page 8 line 2 and page 8, lines 23-29.

11. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (US 6,014,125) in view of Kurumisawa et al. (US 6,262,704).

With respect to claim 31, Herbert discloses, the display device of claim 29 (see above).

Herbert does not expressly disclose, wherein the control unit is configured to select the select sequence based on whether the device is in a standby mode of operation.

Kurumisawa discloses, wherein a scanning select sequence is based on whether the device is in a standby mode of operation (Abstract).

Kurumisawa and Herbert and analogous art because they are both from the same field of endeavor namely, scan line control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to alter the scan sequence of the display of Herbert such that less lines are scanned in when the display is in a standby state.

The motivation for doing so would have been to lower power consumption of the display (Kurumisawa; Abstract).

### Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Boddie whose telephone number is (571)

Application/Control Number: 10/517,108 Page 11

Art Unit: 2629

272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/8/07 wlb

> SUMATI LEFKOWITZ SUPERVISORY PATENT EXAMINER